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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Michael A. Helgeson

Serial No.: 09/311,092 Examiner: Nguyen, Nam V.

Filed: May 13, 1999 Group Art Unit: 2635

For: STATE VALIDATION USING BI-DIRECTIONAL WIRELESS LINK

Docket No.: 1004.1123101(H16-25233)

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By Lynn Thompson
Lynn Thompson

We are transmitting herewith the attached:

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Michael A. Helgeson

Serial No.: 09/311,092 Examiner: Nguyen, Nam V.

Filed: May 13, 1999 Group Art Unit: 2635

For: STATE VALIDATION USING BI-DIRECTIONAL WIRELESS LINK

Docket No.: 1004.1123101 (H16-25233)

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

Box AF
Assistant Commissioner for Patents
Washington, D.C. 20231

CERTIFICATE UNDER 37 C.F.R. 1.10: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, "Express Mail Post Office to Addressee" having an Express Mail mailing label number of: EV091135685US, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C., 20231 on this 21st day of April, 2003.

By Lynn Thompson
Lynn Thompson

Dear Sir or Madam:

Pursuant to 37 C.F.R. § 1.192, Appellant hereby submits an Appeal Brief in triplicate in furtherance of the Notice of Appeal filed on February 21st, 2003. Enclosed herewith is a check in the amount of $320.00 to cover the fee prescribed by 37 C.F.R. § 1.17(c). Permission is hereby granted to charge or credit deposit account number 50-0413 for any errors in fee calculation.

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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Honeywell International Inc., a corporation organized and existing under the laws of the State of Delaware, and having its principal offices at 101 Columbia Road, Morristown, New Jersey 07962, U.S.A. An assignment from the inventor Michael Helgeson conveying all right, title and interest in the invention to Honeywell International Inc. (predecessor to Honeywell International Inc.) has been recorded at Reel 010058, Frame 0876.

II. RELATED APPEALS AND INTERFERENCES

There are no other known appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-34 remain pending in the application. The appellant hereby appeals the final rejection of claims 1-34. Claims 1-2, 10-12, 13-18, 19 and 20 stand finally rejected under 35 USC 102(e) as being anticipated by Jacobsen et al. (U.S. Patent No. 6,198,394). Claims 1, 3-9, 23-29 and 31-34 stand finally rejected under 35 USC 102(e) as being anticipated by Reis et al. (U.S. Patent No. 5,973,613). Claims 21-22 stand

finally rejected under 35 USC 103(a) as unpatentable over Jacobsen et al. (U.S. Patent No. 6,198,394). Claim 30 stands finally rejected under 35 USC 103(a) as being unpatentable over Reis et al. in further view of Jacobsen et al. (U.S. Patent No. 6,198,394).

The rejections of claims 1-34 are being appealed.

IV. STATUS OF AMENDMENTS

An Amendment was sent on November 18, 2002, in response to a Final Office Action mailed on September 24, 2002. An Advisory Action mailed on December 17, 2002, sustained the rejections of claims 1-34.

V. SUMMARY OF INVENTION[1]

The pending claims are directed to a building monitor system using bi-directional radio frequency communication achieved by a wireless control system. Relative to claim 1, the wireless control system 20 has a master unit 22 and remote units 24, 25. (P. 8, lines 12-13; Figure 1.) Each master unit 22 has a transceiver 70. (P. 12, lines 7-8; Figure 3.) Each remote unit 50 has a transceiver 52 which may be set to transmit and

[1] The references to the specification and drawings provided herein are exemplary, and are not deemed to be limiting.

receive on different frequencies. (P. 10, lines 6-7. lines 13-14; Figure 2.)

Relative to claim 2, some of the remote units 24, 25 have sensors 36, 38, 40, 42 logically coupled to them. (P. 8, lines 17-18, 22-23; Figure 1.)

Relative to claim 3, the remote units 24, 25 have three states or modes of power consumption. (P. 12, lines 14-15.) In a first low power consumption state, the remote unit neither transmits nor receives. In this mode, the remote unit or transceiver is in a low power "sleep" mode. (P. 12, lines 15-16.) An event can awaken the transceiver from the sleep mode, e.g., sensor data change. (P. 12, lines 21-22.) The remote unit, which sleeps in a very low power consumption mode, when interrupted executes in a normal power consumption mode while transmitting or receiving. (P. 13, lines 21-23.) Sleeping state 108 is a very low consumption state in which the transceiver or remote unit can neither receive nor transmit. (P. 15, lines 1-2.)

Relative to claim 4, the remote unit in a sleeping state 108 can be awakened by a timer interrupt. (P. 15, lines 4-5.) A synch signal can be used to reset an internal timer of a remote unit to determine the next time to awake from the sleeping state 108. (P.17, line 23 to p. 18, line 2.) Sleeping

state 108 can be exited upon reception of a timeout event 115. (P.15, lines 6-7.) After reception of a timeout event 115, a status communicating step 114 can be executed, which can include setting the transceiver of the remote unit to a receive mode. (P. 15, lines 14-15.)

Relative to claims 5 and 6, remote unit upon completion of a transmission, indicated at 111, can enter a waiting for acknowledge state 112. While in this state, the remote unit (i.e., its transceiver) can be switched to a receive mode at a receive frequency determined during the getting slot state 106. (P. 15, lines 13-16; Figure 4.)

Relative to claim 7, the lapse of a preset interval, such as the lapse of the time interval between scheduled health status transmissions by the remote unit may be an event that awakens the transceiver of the remote unit from the sleep mode. (P. 12, line 21 to p. 3, line 13.)

Relative to claim 8, sensor data such as room temperature may be transmitted as part of a health or status message. In this way, the periodic message is used to insure that the remote unit is still functioning. (P. 17, lines 16-18.)

Relative to claim 8, upon a reception of a sensor event 109, a transition to a transmitting alarm state 110 can occur, and during this transition or soon thereafter, the transceiver

can be switched to a transmit mode. (P. 15, lines 7-9; Figure 4.) For example, the remote unit can transmit the length of time a contact has been open. Upon completion of transmission, indicated at 111, a waiting for acknowledge state 112 can be entered, which is to await receipt the acknowledgment of the transmission from the remote unit to the master unit. (P. 15, lines 12-15; Figure 4.)

Relative to claim 8, the remote unit may wait for a given period of time after a timeout event or a time to wait from the master unit, before transmitting a signal such as status information. (P. 16, lines 6-9.)

Relative to claim 9, upon receipt of an acknowledgment from the master unit, indicated at 113, the remote unit can enter the sleeping state 108, where the remote units do not further transmit the transmitted message. (P. 15, lines 17-19; Figure 4.)

Relative to claim 10, upon receiving an arm message 203, an arming state 204 is entered during which, for example, a security device or remote unit can be armed or activated. In general, arming a unit refers to making some aspect of the unit active. (P. 21, lines 2-5; Figure 5.) When the disarming process is completed, as indicated at 209, the receiving state 202 can be returned to. (P. 21, lines 8-9.) A reason for

disarming a device or remote unit is to reduce the alarm event transmissions made by the unit. This can, reduce RF traffic and also conserve battery life, since the power is not used as often for transmitting messages. (P. 21, lines 16-18.)

Referring to claim 11, for example sensors of a remote unit, a microphone may be armed only when listening to follow up on a motion detector alarm or a door open alarm, or a temperature measuring mechanism may only be armed when a temperature reading is desired, and be disarmed during the remainder of the time. (P. 21, line 21 to p. 22, line 2.)

Relative to claim 12, an arm-disarm process 200 may begin in a receiving state 202. (P. 20, lines 19-20; Figure 5.) Upon receiving an arm message 203, an arming state 204 is entered during which a security device, or other sensor, can be armed. (P. 21, lines 2-4.) A controller 54 is coupled to transceiver 52. (P. 10, line 17.) Remote unit 50 may have sensor input lines 66 for coupling security sensors and other devices. Sensor inputs 66 are connected to controller 54. (P.11, lines 6-7; Figure 2.) Remote unit 50 has a controller 54, transceiver 52 and an antenna 23. (P. 10, lines 6-7.) Controller 54 includes a programmable microprocessor or a programmable or writeable state machine.

The controller 54 and serial lines can be used for any purpose. The serial lines may be used to convey both status and control data. (P. 11, lines 2-5.) A remote unit may have an armed state in which the sensors can sense and the unit can transmit, and a disarmed state in which, in combination, the sensors cannot sense and the remote unit transmit. (P. 6, lines 20-22.)

Relative to claim 13, some of the remote units 24, 25 have sensors 36, 38, 40 and 42 logically coupled to them. (P. 8, lines 17-18, 22-23; Figure 1.) In a receiving state 232, reception of a validation or confirmation message 233 can cause transition to a sensor state 234 in which a sensor event is read or polled to determine its value. Upon completion of reading sensor 234, which is indicated at 235, a transmitting data state 236 may be executed in which data is transmitted from the remote unit to the master unit. Upon completion of transmission indicated at 237, a receiving state can be entered again. (P. 22, lines 5-11; Figure 6.)

Relative to claim 14, when an alarm event is received by the master unit, the type of sensor is looked up by the master unit or is included in a message transmitted by the remote device. In the master unit, a lookup table is used to determine whether confirmation or validation should be used, and if so,

how soon and for what number of repetitions. (P. 22, lines 15-19.)

Relative to claims 15 and 16, an example is the lookup table for a certain type of device which indicates that two readings are required and a second reading should be taken in, for instance, 0.5 second. (P. 22, lines 21-22.)

Relative to claim 17, there is a building monitor system 20 that has a master unit 22 and remote units 24 and 25. (P.8, lines 12-13, 15-16; Figure 1.) The master unit 22 has a transceiver 70. (P. 11, lines 20-21.) Remote units 24, 25, 50 have a transceiver 52. (P. 10, lines 6-7; Figure 2.) The building monitor system has bi-directional radio frequency links between the master and remote units. (P. 5, lines 1-2.) Remote units may be in a receive state and waiting for a poll message from the master unit. (P. 5, lines 17-19.) Some remote units transmit data after the occurrence of an event. The events may include polling events. (P. 5, lines 17-21.) Each remote unit has at least one timer. (P. 6, lines 16-17.) After the expiration of a timer, a timeout event 155 occurs. (P. 18, lines 12-13.) Remote unit 25 includes two sensors 40 and 42. (P.8, lines 22-23.) The sensors can measure variables. (P. 9, line 1.) Remote units can generate a sensor event or transmit sensor data on a change occurrence or change of measurement.

(P. 13, lines 5-6.) Each of the remote units can operate in a low power consumption "sleep" mode, wherein the transceiver is neither transmitting nor receiving. (P. 12, lines 15-16.) The remote unit sleeps in a very low power consumption mode, which, when interrupted, executes in a normal power consumption while transmitting or receiving. (P. 13, lines 20-23.) Events can awaken the transceiver from the sleep mode. (P. 12, lines 21-22.) Events can include timeout events, sensor charge events and polling events. (P. 5, lines 20-21; P. 12, lines 22 to p. 13, line 3.)

Relative to claims 18 and 19, the remote unit or transceiver operates in a very low power "sleep" mode, wherein the transceiver is neither transmitting nor receiving. (P. 12, lines 15-16.) The remote unit sleeps in a very low power consumption mode, which, when interrupted, executes in a normal power consumption mode while transmitting. (P. 13, lines 21-23.) The remote unit transmits data after the occurrence of an event such as a polling event or a sensor event. The remote unit may be in a receive state only after transmitting. (P. 5, lines 17-21.)

Relative to claim 20, one event is the occurrence of a sensor data change. (P. 12, line 22.) For example, a

temperature sensor may be configured to transmit upon a one (1) degree change from the last transmission. (P. 13, lines 6-8.)

Relating to claims 21 and 22, sensors typically measure variables and output data which can be binary or discrete, meaning on/off; or the data can be continuous or analog, meaning having a range of values. (P. 9, lines 2-4.)

Relating to claim 23, the method pertains to a building monitor system that includes bi-directional radio-frequencing links between the master and remote units. (P. 5, lines 1-2.) The remote unit can transmit messages to the master unit. (P. 5, lines 1, 11.) The remote unit awaits an acknowledgement from the master unit after a transmission. P. 5, lines 21-22.)

Relating to claim 24, there are bi-directional radio frequency links between the master and remote units. (P. 5, lines 1-2.) A periodic message from the remote unit to the master unit used to insure that the remote unit is still functioning can also be used to log the current data from the sensors. (P. 17, lines 17-19.)

Relating to claim 25, the building monitor system has bi-directional radio frequency links between the master and remote units. (P. 5, lines 1-2.) The remote unit can operate in a low power consumption state wherein the transceiver of the remote unit is neither transmitting nor receiving. (P. 12, lines 15-

16.) The remote unit may be in a receive state in which the unit can receive. (P. 5, lines 16-18.) The remote unit has a transmitting state. (P. 6, lines 9-10.) The remote unit 24, 25 is coupled to sensors 36, 38, 40 and 42. (P. 8, lines 17-23.) An event that can awaken the transceiver of the remote unit from the sleep mode, wherein the transceiver is neither transmitting nor receiving, is the occurrence of a sensor data change, such s a door switch opening, or a significant percentage change of an analog variable. (P. 12, lines 15-16, 21-23.) The remote unit may stay in the sleeping state 108, a noncommunicating state, until awakened by an interrupt, such as a sensor event 109, which results in a transition to a transmitting alarm state 110, wherein the transceiver of the remote unit can be switched to a transmit mode. (P. 15, lines 1-9; Figure 4.) Upon completion of the transmitting the sensor change event, a waiting for acknowledge state can be entered, and the transceiver of the remote unit can be switched to a receive mode. (P. 15, lines 13-15.) Upon receipt of an acknowledgment 113 from the master unit, the remote unit can enter the sleeping state 108. (P. 15, lines 17-19.) While in the sleeping state 108, the remote unit waits for a device sensor interrupt, such as a sensor change. (P. 15, lines 4-5; P. 12, lines 21-22.)

Referring to claim 26, the transceiver 52 of the remote unit can only either receive or transmit but not both at the same time. (P. 10, line 16.)

Referring to claim 27, the master is aware of the overall timing or scheduling scheme of the system. (P. 20, lines 3-4). New transmission times and flags indicating whether to wait for unit polling may be included in acknowledge or synch messages transmitted from the master to the remote unit. (P. 18, lines 16-18). The remote unite may transition to a getting slots state 106 and can include receiving a time slot for communication with the master unit. (P. 14, lines 15-18; Figure 5.) Communication from the master to the remote unit can establish when to transmit data. (P. 19, lines 16-18.)

Referring to claim 28, transmission frequencies are included in acknowledge or synch messages transmitted from the master to remote. (P. 18, lines 16-18.) Communication from the master to the remote can establish which frequencies to use. (P. 19, line 16.) The remote unit may transition to a getting slots state 106 and receiving frequency slots for transmitting to and receiving from the master. (P. 14, lines 15-18; Figure 5.)

Referring to claim 29, the master unit can request a sensor re-read from the remote unit to validate an event. (P. 7, lines

9-10.) Upon completion of reading the sensor, indicated at 235, a transmitting data state 236 can be executed in which the desired data is transmitted by the remote unit to the master unit. (P. 22, lines 8-10; Figure 6.)

Referring to claim 30, the remote unit has an armed state in which the sensors can sense and the remote unit can transmit, and a disarmed state in which the sensors cannot sense and/or the remote unit cannot transmit. (P. 6, lines 20-24.) Upon a remote unit's receiving an arm message 203 from the master unit, an arming state 204 is entered. (P. 21, lines 2-3; Figure 5.) When a disarm message 207 is received by a remote unit from the master unit, a disarming state 208 is entered. (P. 21, lines 7-8.)

Referring to claim 31, the building monitor system has bi-directional radio frequency links between the master and remote units. (P. 5, lines 1-2.) The remote unit can operate in a low power consumption state wherein the transceiver of the remote unit is neither transmitting nor receiving. (P. 12, lines 15-16.) The remote unit may be in a receive state in which the unit can receive. (P. 5, lines 16-18.) The remote unit has a transmitting state. (P. 6, lines 9-10.)

Coordination between the master and remote units can include what time interval to transmit data in, and when to

begin transmitting the data. (P. 19, lines 12-14.) Communication from the master unit to the remote unit can establish when to transmit data. (P. 19, lines 16-17.) When the master unit has allocated a time slot or window for receiving the data of a particular remote unit, that unit should transmit its data within that time slot or window. (P. 19, lines 8-10.) The remote unit sleeps in a very low power consumption mode, which executes in a normal power consumption mode while transmitting or receiving. (P. 13, lines 21-23.) IN the very low power sleep mode, the remote unit is neither transmitting nor receiving. (P. 12, lines 15-16.)

While in a sleeping state 108, the remote unit may be awakened by timer interrupts or other interrupts. (P. 15, lines 5-6.) Upon an interrupt, transition to a transmitting alarm state 110 can occur. During this transition or soon after, the remote unit can be switched to a transmit mode. While in this state, a transmission of a message may be made to the master unit. Upon completion of the transmission, indicated at 111, a waiting for acknowledge state 112 can be entered. While in this state, the remote unit can be switched to a receive mode. (P. 15, lines 4-16; Figure 4.) After reception of the acknowledgement, a new time can be determined for communication. (P. 18, lines 9-11.)

Referring to claim 32, remote unit 24 may have at least a sensor 36, 38, 40 or 42, for producing sensor output data. (P. 8, line 17 to P. 9, line 3.) Coordination between the master and remote units can include what time to communicate messages and data. (P. 19, lines 12-14.)

Referring to claim 33, the building monitor system has bi-directional radio frequency links between the master and remote units. (P5, lines 1-2.) The remote unit can operate in a low power consumption state wherein the transceiver of the remote unit is neither transmitting nor receiving. (P. 12, lines 15-16.) The remote unit may be in a receive state in which the unit can receive. (P. 5, lines 16-18.) The remote unit has a transmitting state. (P. 6, lines 9-10.)

Upon completion of initialization state 104 at 105, a transition to a getting slots state 106 may occur and include receiving a time slot for communication of the remote unit with the master unit. (P. 14, lines 14-17; Figure 4.) Upon completion of the getting slots state 106, as indicated at 107, the remote unit transitions to a sleeping state 108. (P. 14, lines 20-22.) Sleeping state 108 may be exited upon reception of a timeout event 115. A timer is loaded with a time period determined during the getting slot state 106. (P. 16, lines 6-8.) After reception of the timeout event 115, i.e., expiration

of the time interval, a status communicating step 114 may be executed which includes setting the remote unit to a transmit mode for transmitting a message. (P. 16, lines 14-16.)

Referring to claim 34, upon completion of transmission of a message, a waiting for acknowledgement state 112, 120 may be entered. While in this state, the remote unit may be switched to a receive mode. (P. 15, lines 13-15; Figure 4.) Upon reception of an acknowledgment 121 from the master unit, the remote unit can wait in the sleeping state 108. (P. 15, lines 17-19.) Sleeping state 108 is a state in which the remote unit is able to neither transmit nor receive, i.e., a non-communicating state. (P. 12, lines 15-16.)

VI. ISSUES

1. Whether claims 1-2 and 10-20 are unpatentable under 35 USC 102(e) over Jacobsen et al. (U.S. Patent No. 6,198,394 B1).

2. Whether claims 1, 3-9, 23-29 and 31-34 are unpatentable under 35 USC 102(e) over Reis et al. (U.S. Patent No. 5,973,613).

3. Whether claims 21-22 are unpatentable under 35 U.S.C. § 103(a) over Jacobsen et al. (U.S. Patent No. 6,198,394 B1).

4. Whether claim 30 is unpatentable under 35 U.S.C. § 103(a) over Reis et al. (U.S. Patent No. 5,973,613) in view of Jacobsen et al. (U.S. Patent No. 6,198,394 B1).

VII. GROUPING OF CLAIMS

Pursuant to 37 CFR §1.192(c)(7) the Appellant asserts that claims 1-22 stand or fall together and that claims 23-34 stand or fall together.

VIII. ARGUMENT

A. Claims 1-2 and 10-20 are patentable over Jacobsen et al. (U.S. Patent No. 6,198,394 B1) under 35 U.S.C. § 102(e).

1. Jacobsen et al. do not constitute applicable art.

Jacobsen et al. should not be considered as prior art for a 102(e) rejection relative to the present invention of a building monitor as claimed in independent claims 1 and 17, and dependent claims 2, 10-16 and 18-20. The claims contain an element regarding the building monitor. A building monitoring system as claimed in the present application is not disclosed in Jacobsen et al. The device in Jacobsen et al. appears to be, as the title depicts, a system for remote monitoring of personnel. It may be utilized for the monitoring physiological status of a soldier or another person. (Abstract of Jacobsen et al.) In

the Final Office Action (P. 3, Para. 4) mailed September 24, 2002, the Examiner stated, "Jacobsen et al. disclose an individual status unit could be mode [sic] smaller and provided to residents of long-term care facilities (column 16 lines 46-49)." The Examiner concludes, "Therefore, the long-term care facilities are similar to a building monitor system." (P.3, lines 11-12, Final Office Action.)

Referring to claim 1, the Examiner said, "Jacobsen et al. show a building monitor system (column 16 lines 46 to 60) utilizing bidirectional radio frequency communication (Figure 7) comprising...." Lines 46 to 49 of column 16 in Jacobsen et al. state, "Numerous modifications can be made to the present invention without departing from the scope or spirit of the same. For example, an individual status unit could be made smaller and provided to residents of long-term care facilities." This is not a status unit of a facility. Here, Jacobsen et al. are merely arguing a transition of their invention from the soldier to a long-term care resident. Next, Jacobsen et al. add, "The size of the device could be reduced because it need not be as durable as the military version, and would require a much smaller range for radio communications." (Column 16, lines 50-52.) This statement does not pertain to any peculiar requirement for a building monitor system since latter need not

be made smaller, and in fact, would likely be larger. Size reduction is important for a military personnel monitor system because the device must be mobile and less weight is preferred to be carried around by the military personnel. Lines 52-56 of column 16 state, "Rather than requiring nurses to track down patients to take their vital signs, the system for remotely monitoring personnel status of the present invention would enable nurses to determine the patients' location, as well as their vital signs." The nurses could be monitoring patients outside of the facility or building as well, and thus such monitoring would not be anything of the building. The remaining lines 56-60 state, "If the information received indicated a problem, the location of the patient could be readily determined. Thus, a smaller number of nurses could be used while providing a higher level of care." Apparently, such information received by the nurses would not necessarily be relevant to monitoring the facility, or the building as claimed in the present application.

In the Advisory Action, mailed December 17, 2002, the Examiner again referred to the above-noted cite (i.e., column 16, lines 46-60) with the statement, "When considering the Jacobsen et al. reference, one skilled in the art readily recognizes resident of long-term care facilities (cited in

column 16 lines 46-49) implies places such as nursing homes." (Continuation Sheet, lines 1-3.) The Examiner added, "Clearly these are buildings." (Id., line 4.) This statement appears not relevant because it is not the nursing home or building that is being monitored. It is the resident or patient that is being monitored. Such patients could leave the nursing home and still be monitored. An outdoor location of the personnel would not aid in any kind of building monitoring. The nursing home or respective building could be robbed, damaged or be burning without any indication by the Jacobsen et al. remote personnel monitoring device on such patient. Even inside of the building, such monitoring device may be ineffective relative to such monitoring the building. Thus, the Jacobsen et al. device is not the monitoring system claimed in the present application.

In the Final Office Action of September 24, 2002, the Examiner said, "Therefore, the long-term care facilities are similar to a building monitoring system." (Lines 13-14, P. 3.) However, anticipation requires more than similarity, it requires identity of invention. Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 771 Cir. 1983), *cert. denied*, 465 U.S. 1026, 104 S. Ct. 1284 (1984). Thus, "[t]he identical invention must be shown in as complete detail as is contained in the patent claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, (Fed. Cir.

1989), *citing* *Jamesbury Corp. v. Litton Industrial Products, Inc., 756 F.2d 1556, 1560 (Fed. Cir. 1985); Connell v. Sears,* Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983). "In deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference." Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co., 730 F.2d 1452, 1458 (Fed. Cir.1984). "While the teaching in the prior reference need not be *ipsissimis verbis*, nevertheless, there must be a teaching with respect to the entirety of the claimed invention." Structural Rubber Prods Co. v. Park Rubber Co., 749 F.2d 707, 716 (Fed. Cir. 1984). "Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." Id., at 716, *citing* *Soundscriber Corp. v. U.S., 360 F.2d 954, 960, (Ct. Cl. 1966).* Similarity is not adequate to support a rejection under 35 U.S.C. § 102. Thus, the rejection of claims 1-2 and 10-20 under 35 U.S.C. § 102(e) as being anticipated by Jacobsen et al. (U.S. Patent No. 6,198,394) should be withdrawn.

B. Claims 1, 3-9, 23-29 and 31-34 are patentable over Reis et al. (U.S. Patent No. 5, 973,613) under 35 U.S.C. § 102(e).

1. Reis et al. do not constitute applicable art.

Reis et al. should not be considered as prior art for a 102(e) rejection relative to the present invention as claimed in independent claims 1, 23, 25, 31 and 33, and dependent claims 3-9, 24, 26-29, 32 and 34. At least one element of the claims relates to the building monitor system. A building monitoring system as claimed in the present application is not disclosed in Reis et al. The device disclosed in Reis et al. appears to be a messaging system and method. In the Final Office Action of September 24, 2002, the Examiner said, "Reis et al. disclose device range capability are satisfactory for local communication ranges suitable for warehouses, buildings, and other similar local regions (column 11 lines 4 to 9)." (Penultimate line of P. 3 to line 1 of P. 4.) The Examiner added, "Therefore, the device range capability for buildings is similar to a building monitoring system." (Id., P. 4, lines 1-2.) Such range capability may be similar to many kinds of communications systems. Because a device may have a range capability satisfactory for local communication in or around buildings does not mean that it is a building monitor or that it anticipates any other claim of a communications system having a similar

range capability. The device of Reis et al. may also be used outside of a building. If the building were being robbed or burning, the Reis et al. system would not be very helpful if not situated in the building. Even if it were in the building, it would not necessarily be helpful as a building monitor.

One may again note the Examiner's conclusion that "the device range capability for buildings is similar to a building monitoring system." (Lines 1-2, P. 4 of Final Office Action.) However, anticipation requires more than similarity, it requires identity of invention. Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 771 Cir. 1983), *cert. denied*, 465 U.S. 1026, 104 S. Ct. 1284 (1984). Thus, "[t]he identical invention must be shown in as complete detail as is contained in the patent claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, (Fed. Cir. 1989), *citing Jamesbury Corp. v. Litton Industrial Products, Inc., 756 F.2d 1556, 1560 (Fed. Cir. 1985); Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983).* "In deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify corresponding elements disclosed in the allegedly anticipating reference." Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co., 730 F.2d 1452, 1458 (Fed. Cir.1984). "While

the teaching in the prior reference need not be *ipsissimis verbis*, nevertheless, there must be a teaching with respect to the entirety of the claimed invention." Structural Rubber Prods Co. v. Park Rubber Co., 749 F.2d 707, 716 (Fed. Cir. 1984). "Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." Id., at 716, *citing Soundscriber Corp. v. U.S., 360 F.2d 954, 960, (Ct. Cl. 1966).* Similarity is not adequate to support a rejection under 35 U.S.C. §102. Thus, the rejection of claims 1, 3-9, 23-29, and 31-34 under 35 U.S.C. § 102(e) as being anticipated by Reis et al. (U.S. Patent No. 5,973,613) should be withdrawn.

C. Claims 21-22 are patentable over Jacobsen et al. (U.S. Patent No. 6,198,394 B1) under 35 U.S.C. § 103(a).

As shown above in Paragraph A of this Argument, Jacobsen et al. do not show a building monitor system. Instead, Jacobsen et al. relate to personnel monitoring, such monitoring of military personnel or residents of a long term care facility. The sensors in Jacobsen et al. relate to physiological variables and environmental variables that pertain to personnel. There is no suggestion or motivation in Jacobsen et al. to modify Jacobsen et al. to have sensor variables that pertain to monitoring a

building as claimed. The subject matter of Jacobsen et al. is not analogous art because it pertains specifically to remote monitoring of personnel. The present invention pertains particularly to building monitoring. An instance of art appearing to be analogous, e.g., memories, but not so, was discussed by the Federal Circuit in the following. "The Allen-Bradley art is not in the same field of endeavor as the claimed subject matter merely because it relates to memories. It involves memory circuits in which modules of varying sizes may be added or replaced; in contrast, the subject patents teach compact modular memories." Wang Laboratories, Inc. v. Toshiba Corp., 26 USPQ 2d 1767, 1773 (Fed. Cir. 1993). Further, "Wang's SIMMs were designed to provide compact computer memory with minimum size, low cost, easy repairability, and easy expandability. . . . In contrast, the Allen-Bradley patent relates to a memory circuit for a larger, more costly industrial controller. . . . Thus, there is substantial evidence in the record to support a finding that the Allen-Bradley prior art is not reasonably pertinent and is not analogous." Id.

As such, claims 21-22 should be patentable over the non-analogous art of Jacobsen et al. (U.S. Patent No. 6,198,394) under 35 U.S.C. § 103(a).

D. Claim 30 is patentable over Reis et al. (U.S. Patent No. 5,973,613) in view of Jacobsen et al. (U.S. Patent No. 6,198,394 B1) under 35 U.S.C. § 103(a).

There appears not to be a suggestion or motivation in Reis et al. or Jacobsen et al. relative to the method particularly for the combination to provide remote unit arming and disarming in response to messages received from a master unit as it relates to sensing and transmitting data for monitoring a building. Reis et al. relates to a personal messaging system, as the Examiner acknowledges but argues adding this personnel messaging system into the system of Jacobsen et al., which is mistakenly assumed to be a building monitor system, for rejecting claim 30. Again, for reasons noted in the above paragraph C of this Argument, neither Jacobsen et al. nor Reis et al. are analogous art relative to the present invention. As such, claim 30 should be patentable over Reis et al. (U.S. Patent No. 5,973,613) in view of Jacobsen et al. (U.S. Patent No. 6,198,394) under 35 U.S.C. § 103(a).

IX. CONCLUSION

For the reasons stated above, the rejection of claims 1-20, 23-29 and 31-34 under 35 U.S.C. § 102(e) and the rejection of claims 21-22 and 30 under 35 U.S.C. § 103(a) should be reversed.

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X. APPENDIX OF CLAIMS

1. (Amended) A building monitoring system utilizing bi-directional radio frequency communication comprising:

at least one master unit including a radio frequency transmitter and receiver; and

a plurality of remote units having a radio frequency transmitter and receiver, said remote units capable of transmitting to and receiving from said master unit of the building monitoring system.

2. A building monitoring system according to claim 1, wherein at least some of said remote units include sensors logically coupled to said remote units.

3. (Amended) A building monitoring system according to claim 1, wherein said remote units having a first low power consumption state in which said remote units can neither receive nor transmit, a second power consumption state in which said units can receive, and a third power consumption state in which said units can transmit, wherein said second and third states have higher power consumption than said first state.

4. A building monitoring system according to claim 3,

wherein said remote units are in said receive state only at predetermined intervals.

5. A building monitoring system as recited in claim 4, wherein in normal operation said remote units are in said receive state only after being in said transmit state.

6. A building monitoring system as recited in claim 5, wherein said remote units are in said receive state and await an acknowledgment from said master unit only after being in said transmit state.

7. A building monitoring system as recited in claim 4, wherein said remote units transmit messages at periodic intervals.

8. A building monitoring system as recited in claim 4, wherein said remote units transmit messages after a predetermined event for a discrete period of time and then await an acknowledgment of said message transmission.

9. A building monitoring system as recited in claim 8, wherein after said remote units receive said acknowledgment,

said remote units do not further transmit said transmitted message.

10. A building monitoring system as recited in claim 2, wherein said remote units have an armed state in which said sensors are active and able to measure sensor variables, and a disarmed state in which said remote units are unable to transmit messages, wherein said remote units have means for switching between said armed and disarmed states, and wherein said means for switching between the armed and disarmed states is responsive to a message received from said master unit.

11. A building monitoring system as recited in claim 10, wherein said remote units are unable to measure at least some sensor variables while in said disarmed state.

12. A building monitoring system as recited in claim 10, wherein said remote unit includes a controller logically coupled to said receiver, wherein said means for switching between said armed and disarmed states passes said message from said receiver to said controller; processes said message in said controller; executes arm instructions in response to an arm message; and executes disarm instructions in response to a disarm message,

wherein said disarm instructions prevent said sensor change messages from being transmitted.

13. A building monitoring system as recited in claim 2, wherein said remote units have a reading sensor state in which said sensors are read by said coupled remote units, wherein said reading sensor state is entered in response to a read message received from said master unit; and

said system including means for validating a sensor event, said means for validating including means for requesting reading of said sensor initiated by said master unit and means for reading said sensor by said remote unit responsive to said means for requesting, wherein said means for validating includes means for transmitting sensor data from said remote unit to said master unit.

14. (Amended) A building monitoring system as recited in claim 13, wherein said means for validating sensor data includes at least two different validation processes, wherein said means for validating include means for identifying the sensor and means for determining which of said validation processes to use depending on the identified sensor.

15. (Amended) A building monitoring system as recited in claim 14, wherein said validation processes waits a predetermined time before requesting an additional sensor reading and said predetermined time to wait is dependent on the identified sensor.

16. (Amended) A building monitoring system as recited in claim 14, wherein said means for validating includes an indication of whether to request an additional sensor reading and said indication of whether to request said additional reading is dependent on the identified sensor.

17. (Amended) A building monitoring system utilizing bi-directional radio frequency communication comprising:

at least one master unit including a radio frequency transmitter and receiver;

a plurality of remote units each having a radio frequency transmitter and receiver, said remote units capable of transmitting to and receiving from said master unit of the building monitoring system and capable of generating polling events in response to a poll message received from said master unit;

said remote units each having at least one timer for

generating a timeout event;

said remote units each having at least one sensor for measuring selected variables; said remote units capable of generating a sensor event in response to a sensor change of measurement; and

said remote units each having a non-communicating state with low power consumption and in which said remote units can neither receive nor transmit, and a receiving state having higher power consumption than said non-communicating state and in which said units can receive, wherein said selected remote units are in said receiving state only after selected event occurrences, wherein said selected events are selected from the group consisting of timeout events, polling events, and sensor events.

18. A building monitoring system as recited in claim 17, wherein said remote units each have a transmitting state in which said remote unit can transmit and in which power consumption is higher than in said non-communicating state, wherein said polling event causes said remote unit to enter said transmitting state followed by entering said receiving state.

19. A building monitoring system as recited in claim 17, wherein said remote units each have a transmitting state in which said remote unit can transmit and in which power consumption is higher than in said non-communicating state, wherein said sensor event causes said remote unit to enter said transmitting state followed by entering said receiving state.

20. A building monitoring system as recited in claim 19, wherein said sensor event is caused by a change in a measured variable.

21. A building monitoring system as recited in claim 20, wherein said sensor variable is a binary variable.

22. A building monitoring system as recited in claim 20, wherein said sensor variable is a continuous variable.

23. (Amended) A method for communicating between a remote unit and a master unit in a radio-frequency building monitoring system, comprising:

transmitting a message from the remote unit to the master unit of the building monitoring system; and

transmitting an acknowledge from the master unit to the

remote unit indicating receipt of the message.

24. A method according to claim 23, further comprising the steps of:

transmitting a message from the master unit to the remote unit; and

transmitting an acknowledge from the remote unit to the master unit indicating receipt of the message.

25. (Amended) A method for communicating between a remote unit and a master unit in a radio-frequency building monitoring system, wherein the remote unit is capable of transmitting to and receiving messages from the master unit of the building monitoring system, the remote unit further having a non-communicating low power consumption state in which said remote unit can neither receive nor transmit, a receiving state in which said remote unit can receive, and a transmitting state in which said remote unit can transmit, said remote unit also having at least one sensor for producing a sensor change event, the method comprising:

waiting for the sensor change event while in said non-communicating state;

entering the transmitting state and transmitting a message

upon detecting the sensor change event;

entering the receiving state and waiting for acknowledgment of said data transmission; and

returning to the waiting for sensor change step.

26. A method as recited in claim 25, wherein said remote unit does not transmit while in said receiving state and does not receive while in said transmitting state.

27. A method as recited in claim 25, wherein said remote unit receives scheduling information from said master unit while in at least some of said receiving states.

28. A method as recited in claim 25, wherein said remote unit receives transmission frequency instructions from said master while in at least some of said receiving states.

29. A method as recited in claim 25, wherein said system includes a validating step, when said validating step includes: receiving a request for a sensor re-read from said master unit, wherein said sensor re-read request is responded to by said remote unit by reading said sensor and transmitting a message to

said master unit.

30. A method as recited in claim 25, further including:

changing to a disarmed state upon reception of a disarm message from said master unit, wherein, while in said disarmed state, said remote unit does not, in combination, both sense sensor data from the sensor and transmit sensor data; and

changing to an armed state upon reception of an arm message from said master unit, wherein, while in said armed state, said remote unit does, in combination, sense sensor data from the sensor and transmit sensor data.

31. (Amended) A method for communicating between a remote unit and a master unit in a radio-frequency building monitoring system, wherein the remote unit is capable of transmitting to and receiving messages from the master unit of the building monitoring system, the remote unit further having a non-communicating low power consumption state in which said remote unit can neither receive nor transmit, a receiving state in which said remote unit can receive, and a transmitting state in which said remote unit can transmit, the method comprising:

determining a time for communicating with said master;

waiting for said time while in said non-communicating

state;

changing to said transmitting state and transmitting a message upon attaining said determined time for communication;

waiting for acknowledgment of said transmission in said receiving state; and

returning to said determining step for determining a new time for communicating with said master.

32. A method according to claim 31, wherein the remote unit has at least one sensor for producing sensor output data, at least some of the messages transmitted upon attaining said time for communication including said sensor output data.

33. (Amended) A method for communicating between a remote unit and a master unit in a radio-frequency building monitoring system, wherein the remote unit is capable of transmitting to and receiving messages from the master unit of the building monitoring system, the remote unit further having a non-communicating low power consumption state in which said remote unit can neither receive nor transmit, a receiving state in which said remote unit can receive, and a transmitting state in which said remote unit can transmit, the method comprising:

providing a time signal from said master to said remote;

waiting while in said non-communicating state for a time interval corresponding to said provided time signal; and

changing to said transmitting state and transmitting a message after expiration of said time interval.

34. A method according to claim 32, further comprising:

waiting for acknowledgment of said transmission in said receiving state; and

waiting while in said non-communicating state.

XI. APPENDIX OF AUTHORITIES CITED

Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 771 Cir. 1983), *cert. denied*, 465 U.S. 1026, 104 S. Ct. 1284 (1984).

Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, (Fed. Cir. 1989).

Jamesbury Corp. v. Litton Industrial Products, Inc., 756 F.2d 1556, 1560 (Fed. Cir. 1985).

Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983).

Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co., 730 F.2d 1452, 1458 (Fed. Cir.1984).

Structural Rubber Prods Co. v. Park Rubber Co., 749 F.2d 707, 716 (Fed. Cir. 1984).

Soundscriber Corp. v. U.S., 360 F.2d 954, 960, (Ct. Cl. 1966).

Wang Laboratories, Inc. v. Toshiba Corp., 26 USPQ 2d 1767, 1773 (Fed. Cir. 1993).